ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
WIRELESS FIXED ACCESS LOCAL LOOP SERVICES	)	RM-8837
	)	
	)	
Petition for Allocation of Radio Spectrum in the 2 GHz Band for the Provision of Wireless Fixed Access Local Loop Services	)	

To: The Commission

OPPOSITION OF THE MSS COALITION

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August 12, 1996

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SUMMARY

DSC Communications Corp. ("DSC") proposes to initiate a rulemaking proceeding to allocate spectrum within the 2160-2200 MHz band for wireless fixed access-local loop ("WFA-LL") services. The Commission should deny DSC's proposal as inconsistent with existing allocations and as otherwise unwarranted.

Prolonged and difficult global negotiations have led to an international allocation of the 1990-2025 MHZ and 2160-2200 MHz bands for mobile satellite services ("MSS") in Region 2, on a co-primary basis with existing terrestrial microwave fixed services ("FS"), beginning in the year 2000. In response to this international allocation, the Commission has initiated a rulemaking proposing allocation of, *inter alia*, the 2165-2200 MHz band to MSS. Although no decision has yet been issued in that proceeding, DSC has offered no reason for the Commission to interrupt its rulemaking to consider DSC's inconsistent allocation proposal. Moreover, DSC's proposed allocation would greatly complicate ongoing efforts to facilitate sharing in the 2160-2200 MHz band between MSS and various terrestrial line-of-sight FS systems, imposing substantial additional restrictions (and hence cost burdens) on MSS systems, and ultimately delaying the availability of beneficial competitive MSS services to the American public.

DSC's proposed allocation is also unwarranted because the 2 GHz band is needed to meet MSS spectrum requirements, whereas the needs of WFA-LL services can be met in other frequency bands. The need for additional MSS spectrum outside of the L-Band and the so-called "Big LEO" bands to meet the needs of users is well documented. Indeed, the U.S. government has recognized this need in working to obtain additional MSS allocations at WRC-95, as has the Commission in its NPRM in the 2 GHz proceeding. The 2 GHz band represents the only suitable frequency for global voice-grade MSS service via handheld terminals that is both allocated internationally for MSS and usable in the near-term for MSS in the United States.

By contrast, as DSC's Petition indicates, there are several other bands the Commission could consider as alternatives for a WFA-LL allocation. Furthermore, for the near term, it appears that WFA-LL services can be accommodated under the Commission's recent Order allowing flexible service offerings in the commercial mobile radio services. For all of these reasons, the Commission should deny the DSC petition.

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To: The Commission

OPPOSITION OF THE MSS COALITION

COMSAT Corporation ("COMSAT"), Celsat America, Inc. ("Celsat"), Hughes Space and Communications International ("Hughes"), ICO Global Communications ("ICO"), and Personal Communications Satellite Corporation ("PCSAT")[1] (collectively, the "MSS Coalition"),[2] by their attorneys, and pursuant to Section 1.405 of the Commission's Rules, hereby submits its opposition to the Petition for Rulemaking ("Petition") filed on June 4, 1996, by DSC Communications Corporation ("DSC") in the above-captioned proceeding,[3] in which DSC requests the Commission to allocate spectrum within the 2160-2200 MHz band for wireless

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[1] PCSAT is a wholly owned subsidiary of American Mobile Satellite Corporation.

[2] The MSS Coalition represents a diverse cross-section of participants in the MSS industry. They include potential operators of MSS systems at 2 GHz, wholesalers and retailers of MSS services in the U.S. and abroad, investors in MSS systems and MSS equipment manufacturers.

[3] Petition for Allocation of Radio Spectrum in the 2 GHz Band for the Provision of Wireless Fixed Access Local Loop Services, RM 8837, filed June 4, 1996 ("Petition").

fixed access-local loop ("WFA-LL") services.

DSC's proposal is inconsistent with international and domestic allocation initiatives to facilitate the deployment of mobile satellite services ("MSS") in the 2160-2200 MHz band and comes only after a seven-year effort by proponents of MSS to obtain this result. Moreover, there is alternative spectrum available for wireless local loop services, but there are no other frequency bands readily available to meet the future spectrum requirements for MSS. Consequently, the MSS Coalition urges the Commission to reject DSC's proposal to allocate spectrum in the 2160-2200 MHz band for WFA-LL services.

ARGUMENT

I. DSC'S PROPOSAL CONTRAVENES INTERNATIONAL AND DOMESTIC INITIATIVES TO ALLOCATE SPECTRUM AT 2160-2200 MHZ TO MSS OPERATIONS.

DSC proposes to amend the Commission's Rules to allocate radio frequencies in the 1.3-2.7 GHz bands for use in the provision of wireless fixed access local loop services. Among the bands DSC proposes for consideration as a WFA-LL allocation are the following three band pairs: (1) 2110-2145/2165-2200 MHz; (2) 2160-2198.5/2310-2348.5 MHz; and (3) 2400-2438.5/2160--2198.5 MHz. In each case, one half of the proposed band pair involves an allocation in the 2160-2200 MHz band. The Commission should reject DSC's proposal to allocate spectrum in this band to WFA-LL services because such an action would contradict international

and domestic policy to allocate radio spectrum at 2160-2200 MHz to MSS downlinks.

A. International Allocations at 2 GHz for MSS

At the 1995 World Radiocommunications Conference ("WRC-95"), 138 countries agreed to Final Acts that allocated spectrum at 1980-2010 MHz and 2170-2200 MHz for global MSS uplinks and downlinks, respectively.[4] The Final Acts provide for early implementation of global MSS systems at 2 GHz by January 1, 2000 on a co-primary basis with existing terrestrial microwave fixed services ("FS"),[5] and call for the gradual transfer of FS operations from the overlapping portions of the 2 GHz MSS band.[6] Because the 1980-1990 MHz band had previously been allocated in the United States to personal communications services ("PCS"), the U.S. delegation successfully sought and obtained additional uplink and downlink spectrum at WRC-95 for use by Region 2 MSS in the bands 2010-2015 MHz and 2160-2170 MHz. Thus, more than 70 MHz of spectrum at 2 GHz is available in the U.S. (and Canada) -- i.e., 1990-2025 MHz and 2160-2200 MHz -- to permit the introduction of MSS in the United States beginning on January 1, 2000.

The actions taken at WRC-95 reflect more than seven years of

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[4] Final Acts of the World Radiocommunications Conference (WRC-95) (Parts I & II), Geneva, 1995 ("Final Acts").

[5] Final Acts (Part I), at 135.

[6] See Final Acts (Part II), Res. COM 5-10, Resolves 4.1 & 4.3.

efforts on the part of the U.S. government to facilitate the deployment of global MSS systems at 2 GHz. These efforts began in 1989 when the Commission initiated a proceeding to prepare for the 1992 World Administrative Radiocommunication Conference ("WARC-92"). Although the U.S. delegation succeeded in securing an allocation for global MSS in the bands 1970-2010 MHz and 2160-2200 MHz at WARC-92, it took an additional three years for the world to agree at WRC-95 on a transition plan to make the bands usable for global MSS service.

The transition plan agreed to at WRC-95 is predicated on the belief that frequency sharing between MSS and existing FS systems at 2 GHz is feasible as part of a gradual transition arrangement. Resolution COM 5-10, as adopted at WRC-95, requests that Administrations take certain steps to implement the transition in a timely and effective manner.[7] Thus, while MSS and existing FS operations[8] will initially have co-primary status in the 2160-2200 MHz band when MSS systems come into operation on January 1, 2000, a gradual transition is contemplated over the long term to relocate existing fixed operations from overlapping portions of the 2 GHz MSS uplink and downlink bands.

DSC's Petition fails to acknowledge any of the above-noted actions taken at WRC-95 to facilitate the deployment of MSS in

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[7] Id.

[8] Application for new fixed microwave facilities at 2 GHz submitted after May 14, 1992, are being granted on a secondary basis only. (Public Notice No. 23115, May 14, 1992).

the 2160-2200 MHz band. In discussing the ITU-R Recommendations, DSC mentions only the proposed FS channel plans in ITU-R rec. 1098; it makes no mention of the concurrent MSS channel plans.[9] Moreover, in diagraming the current proposed international usage of the 1.3-2.7 GHz bands, DSC's illustration (on page 23) is notable for its failure to reference either the WARC-92 MSS allocations at 2 GHz or the 2 GHz MSS band extensions adopted at WRC-95. DSC's silence regarding the international MSS allocations at 2 GHz should not lull the Commission into considering revised allocations that would contradict the actions taken at WRC-95 and WARC-92 to provide global allocations for MSS in the 2 GHz bands.

B. Domestic Allocations at 2 GHz for MSS

DSC's proposal to allocate spectrum at 2160-2200 MHz for WFA-LL services also is inconsistent with the Commission's proposal to allocate spectrum domestically within this band for MSS downlinks. Prior to WRC-95, the FCC, in response to several petitions for rulemaking,[10] initiated a proceeding to allocate the 1990-2025 MHz (Earth-to-space) and 2165-2200 MHz (space-to-Earth) bands to MSS operations.[11] The FCC's Notice of Proposed

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[9] DSC Petition at 44.

[10] Two of these petitions were filed by members of this MSS coalition, Celsat America, Inc., and Personal Communications Satellite Corporation.

[11] Notice of Proposed Rule Making, ET Docket No. 95-18, 10 FCC Rcd 3230 (1995) ("NPRM").

Rule Making ("NPRM") indicated that this proposed allocation of 70 MHz of spectrum at 2 GHz to MSS should give the public, especially rural Americans, access to new and competitive services and technologies, as well as stimulate economic development and jobs creation in the United States.[12] The NPRM also tentatively proposed a wholesale relocation of existing fixed microwave users in both the 1990-2025 MHz and 2165-2200 MHz bands to accommodate MSS deployment.

Although a decision is still forthcoming in this proceeding, DSC has failed to articulate a reason why the Commission should interrupt its rulemaking to consider DSC's alternative allocation proposals involving the 2160-2200 MHz band -- especially when such action would undermine the Commission's goal of facilitating the deployment of MSS to the benefit of all Americans and when DSC has previously failed to raise these issues at any time over the seven-year effort to obtain the allocation at 2 GHz for MSS. Section 1.421 of the Commission's rules clearly provides that the Commission may issue a further notice of proposed rulemaking only where it deems such action is warranted.[13] DSC doesn't even acknowledge that the Commission has a proceeding underway to allocate the 2165-2200 MHz band to global MSS, much less make a persuasive case on this point.

As an alternative to the Commission's FS relocation proposal

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[12] NPRM at 3233-34.

[13] 47 C.F.R. 1.421.

in the 2 GHz proceeding, the MSS Coalition has proposed that the Commission implement a phased transition plan based on the MSS/FS sharing principles agreed to at WRC-95. Since WRC-95, additional work has been done in ITU-R Working Parties 8D and 9D and in a joint WP8D/9D Rapporteurs Group, to facilitate coordination in the MSS downlink at 2160-2200 MHz between MSS and various terrestrial line-of sight FS systems (i.e. analog, digital, FM-TV). The MSS Coalition is hopeful that these efforts, and parallel efforts underway in the United States under the auspices of the Telecommunications Industry Association to examine the prospects for MSS/FS band-sharing, will provide a consensus on the MSS/FS sharing methodologies and their implementation. DSC's proposal, if adopted by the Commission, would undermine these efforts and unreasonably delay resolution of these important sharing issues.

In contrast to the simple point-to-point microwave paths currently occupying the 2160-2200 MHz band, the WFA-LL architecture proposed by DSC is much more complex. DSC contemplates that WFA-LL services would be distributed over wide-area networks, either in combination with copper or fiber local loop facilities, or as a complete alternative to them. In either case, the WFA-LL network would consist of multiple antenna sites radiating in omnidirectional and/or directional modes to interconnect numerous end users to a telecommunication operator's network for voice, fax, data and ISDN services.

Any sharing scenario that might be developed for WFA-LL systems and MSS would no doubt place substantial restrictions (and cost burdens) on MSS operations -- and would ultimately delay the initiation of competitive MSS service to the American public. DSC has failed to provide a demonstration that co-frequency sharing will be possible with either the existing terrestrial microwave Fixed Service (FS) systems (i.e., Private Operational Fixed and Common Carrier Services) or the MSS systems in the band 2160-2200 MHz. DSC merely indicates that "where coexistence with other services is required, the appropriate technical rules will need to be modified to ensure adequate protections for all involved services." Lacking any information on the operating characteristics of the subscriber terminals for sharing analysis, the MSS Coalition can only assume that the WFA-LL subscriber terminal antennas would be relatively small compared to the FS antennas at 2 GHz. The typical FS antennas would have radiation characteristics that are in close conformity to ITU-R Rec 699 and would be narrower in beamwidth than the WFA-LL subscriber terminal antennas. Therefore, the WFA-LL terminal antennas would not appear to have sufficient directivity to reject interference from FS emissions as well as from MSS downlinks. Given this prospect that WFA-LL may not be able to share with either the FS and MSS systems, the MSS Coalition urges the Commission to reject DSC's request for allocation of spectrum at 2160-2200 MHz for WFA-LL services.

II. THE 2 GHZ BAND IS NEEDED TO MEET THE SPECTRUM REQUIREMENTS OF MSS.

Since the conclusion of WARC-92, it has become evident that the demand for new MSS allocations is substantial and continues to grow as new MSS systems are proposed and planned systems progress in their development.[14] This high demand, coupled with the technical characteristics of MSS networks in geostationary orbit ("GSO") and non-geostationary orbit ("NGSO"), is likely to result in early saturation of both the MSS L-band at 1.5/1.6 GHz and the so-called "Big LEO" MSS bands at 1.6/2.4 GHz. Already in the L-band, over 50 GSO/MSS networks are currently in the process of coordination through the ITU-Radiocommunications Bureau ("ITU-BR"). In the Big LEO bands, over 50 MSS networks have been filed with the ITU-BR to date for a band pair that is half the size of the L-band (i.e. 16.5 MHz as compared to 34 MHz). Given the potential backlog of spectrum requirements for proposed, planned and operating MSS systems, it is clear that, without the 2 GHz MSS band, the current MSS allocations will soon be unable to accommodate all of the demand for MSS services.[15]

The Commission in its domestic 2 GHz proceeding also has recognized the need for sufficient capacity in the 2 GHz range to satisfy the demand for MSS systems. The NPRM addresses the

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[14] See, e.g., Report of the Mobile Satellite Service Above 1 GHz (Informal Working Group 3), April 14, 1995.

[15] Indeed, over 40 MSS systems have already filed with the ITU-BR for use of the 2 GHz MSS bands allocated at WRC-95.

consumer demand for convenient, low-cost satellite-delivered mobile services, particularly in remote or rural areas of the United States that are not covered by terrestrial-based mobile services.[16] To meet this demand, the FCC proposes to allocate 70 MHz of spectrum at 1990-2025/2125-2200 MHz to MSS systems operating in the United States. Moreover, to ensure a truly universal service, the FCC emphasizes its intent that the domestic allocations for MSS be as consistent as possible with the worldwide MSS allocations.[17]

DSC's proposal to allocate spectrum at 2120-2200 MHz to WFA-LL services should not be allowed to undermine the extensive efforts over more than seven years at both an international and a domestic level to satisfy the substantial worldwide demand for MSS spectrum at 2 GHz. The 2 GHz band represents the only suitable frequency for global voice-grade MSS service via hand-held terminals that is both allocated internationally for MSS and usable in the near term by MSS in the United States.

III. ALTERNATIVE SPECTRUM IS AVAILABLE TO ACCOMMODATE WIRELESS LOCAL LOOPS.

As DSC's Petition indicates, there are several other bands the FCC might consider as alternatives for a WFA-LL allocation besides the MSS 2 GHz band. Specifically, DSC proposes that consideration also be given to the following band pairs: (1)

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[16] NPRM at 3233.

[17] Id. at 3234.

1668-1700/1723.5-1755 MHz; (2) 2037.5-2076/2111.5-2150 MHz; and (3) 2401-2439.5/2310-2348.5 MHz. To the extent that these bands represent potential spectrum allocations to be transferred from the federal government, or made available for reallocation through other action by the Commission, such bands would appear to be the optimal starting point for any future WFA-LL allocation. However, for the near term at least, it would seem that the FCC's recent Order permitting flexible service offerings in the commercial mobile radio services ("CMRS") should be able to accommodate any immediate demand for wireless local loop facilities.[18]

CONCLUSION

For the foregoing reasons, the Commission should reject DSC's request to allocate spectrum at 2160-2200 MHz for wireless fixed access-local loop services.

Respectfully submitted,

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[18] First Report & Order and Further Notice of Proposed Rule Making, WT Docket No. 96-6, released Aug., 1, 1996.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 12th day of August, 1996, a copy of the foregoing "Opposition of the MSS Coalition" was mailed, first-class mail, postage prepaid to the following:

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